

LaJuana S. Wilcher
Secretary

AIR QUALITY PERMIT

Issued under 401 KAR 52:040
State-origin Permits

Ernie Fletcher
Governor



Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

Permittee Name: KY Cooperage Company, Inc.
Mailing Address: P.O. BOX- 517
Lebanon, Kentucky 40033

state origin operating permit for wood barrel manufacturing and sawdust processing.

Source Name: KY Cooperage Company, Inc.
Mailing Address: P.O. BOX- 517, Lebanon, Kentucky 40033
Source Location: 712 East Main Street, Lebanon, Kentucky 40033

Source ID #:	21-151-00001	SIC Code:	2449
Source AI #:	2899	County:	Marion
Permit Number:	S-05-082	Source Activity #	APE 19500002
		Permit Type:	Operating

Regional Office: Bowling Green Region
1508 Western Avenue
Bowling Green, KY 42104-3356
(270) 746-7865

Issuance Date: June 17, 2005
Expiration Date: June 17, 2015

John S. Lyons, Director
Division for Air Quality

State-Origin Operating

KY Cooperage Inc
Subject Item Inventory

Activity ID No.: APE20050001

Subject Item Inventory:

ID	Designation	Description
AIOO2899	Source	General Conditions
COMB1	EU 001	Wood Fired Indirect Heat Exchanger Maximum Continuous Rating : 12.3 mmBtu/hr Fuel Type : Wood Waste Construction Commenced : 1960
COMB2	EU 002	Wood Fired Indirect Heat Exchanger Maximum Continuous Rating : 12.3 mmBtu/hr Fuel Type : Wood Waste Construction Commenced : 1960
COMB3	EU 005	Barrel Dryer Maximum Rated Capacity : 32 mmBtu/hr Maximum Design Fuel Rate : 0.032 mmFT ³ /hr Construction Commenced : 1960
EQPT1	EU 003	Stave and Head Woodwork Maximum Overall Design Rate : 10 Tons/hr Construction Commenced : 1960 - 1998
EQPT2	EU 004	Boiler Cyclone Operation Maximum Overall Design Rate : 10 Tons/hr Construction Commenced : 1960 - 1999
EQPT3	EU 007	2 Wood Waste Storage Silo Maximum Overall Design Rate : 5.3 Tons/hr Construction Commenced : 1960 - 1998
EQPT4	EU 011	Head Charring Maximum Rated Capacity : 4.68 mmBtu/hr Maximum Design Fuel Rate : 0.3 Tons/hr Construction Commenced : 1960

State-Origin Operating

KY Cooperage Inc
Subject Item Inventory

Activity ID No.: APE20050001

ID	Designation	Description
EQPT5	EU 012	Barrel Charring Operation Maximum Rated Capacity : 4.5 mmBtu/hr Maximum Design Fuel Rate :0.35 Tons/hr Construction Commenced : 1960

Subject Item Groups:

ID	Description	Components
GACT1	Wood Fired Indirect Heat Exchanger.	COMB1 Wood Fired Indirect Heat Exchanger Maximum Continuous Rating : 12.3 mmBtu/hr Fuel Type : Wood Waste Construction Commenced : 1960
		COMB2 Wood Fired Indirect Heat Exchanger Maximum Continuous Rating : 12.3 mmBtu/hr Fuel Type : Wood Waste Construction Commenced : 1960
GACT2	Barrel and Head Charring Operations	EQPT4 Head Charring Maximum Rated Capacity : 4.68 mmBtu/hr Maximum Design Fuel Rate :0.3 Tons/hr Construction Commenced : 1960
		EQPT5 Barrel Charring Operation Maximum Rated Capacity : 4.5 mmBtu/hr Maximum Design Fuel Rate :0.35 Tons/hr Construction Commenced : 1960

KEY

ACTV = Activity

AREA = Area

EQPT = Equipment

PERS = Personnel

STOR = Storage

AIOO = Agency Interest

COMB = Combustion

MNPT = Monitoring Point

PORT = Transport

STRC = Structure

State-Origin Operating

KY Cooperage Inc
Subject Item Inventory

Activity ID No.: APE20050001

KEY

TRMT = Treatment

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 1 of 17

AIOO2899 (Source) General Conditions:

Submittal/Action Requirements:

Condition

No. Condition

S-1 SEMIANNUAL REPORTS:

The permittee shall submit report(s): Due semiannually, by the 30th of January and July to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit. This report shall be a summary of any monitoring required by this permit, other than continuous emission or opacity monitors. For emission units that had not yet begun construction, were still under construction, or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation. All reports shall be certified by a responsible official. All deviations from permit requirements shall be clearly identified in the reports. [401 KAR 52:040 Section 21]

S-2 COMPLIANCE CERTIFICATION:

The permittee shall certify compliance with the terms and conditions contained in this permit and shall submit compliance certification: Due annually, by the 30th of January to the Regional Office listed on the front of this permit. Compliance Certification Form (DEP 7007CC) (or an approved alternative) shall be used in accordance with the following requirements:

- a. Identification of the term or condition;
- b. Compliance status of each term or condition of the permit;
- c. Whether compliance was continuous or intermittent;
- d. The method used for determining the compliance status for the source, currently and over the reporting period, and
- e. For emission units that had not yet begun construction, were still under construction, or which had not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is not in operation and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the Regional Office listed on the front of this permit and the following address:

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601. [401 KAR 52:040 Section 19]

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 2 of 17

Submittal/Action Requirements:

Condition No.	Condition
S-3	<p>PERFORMANCE TEST NOTICE AND REPORT:</p> <p>Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of any required performance test(s), the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.</p> <p>For any performance test(s) required by this permit, the permittee shall submit performance/emission test results: Due within 45 days of the completion of the fieldwork to the Division. [Policy Manual of the Division for Air Quality, Section VII.3] [401 KAR 50:016 Section 1(1)]</p>
S-4	<p>PERMIT EXPIRATION AND REAPPLICATION REQUIREMENTS:</p> <p>This permit shall remain in effect for a fixed term of ten (10) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division. The permittee shall submit permit application for renewal: Due 180 calendar days before permit expiration date to the Division. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:040 Section 15]</p>

Narrative Requirements:

Condition No.	Condition
T-1	<p>SECTION A. PERMIT AUTHORIZATION. [401 KAR 52:040]</p>

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 3 of 17

Narrative Requirements:

Condition No.	Condition
T-2	<p>A1. Pursuant to a duly submitted application, the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.</p> <p>The permittee shall not construct, reconstruct, or modify an affected facility without first having submitted a complete application and received a permit for the planned activity from the Division, except as provided in this permit or in 401 KAR 52:040, State-origin permits.</p> <p>Issuance of this permit does not relieve the permittee from the responsibility of obtaining other permits, licenses, or approvals that may be required by the Cabinet or other federal, state, or local agencies. [401 KAR 52:040]</p>
T-3	<p>A2. The Division for Air Quality has determined that this facility's potential to emit any air pollutant is less than 100 tons per year. Therefore, although the permit is conditioned to allow emissions in excess of 100 tons per year pursuant to federally enforceable Regulation KAR 59:010, New process operations, emissions equal to or in excess of 100 tons per year of any pollutant are not possible. Accordingly, this permit is being issued as a minor source state-origin permit. [401 KAR 52:040]. [401 KAR 52:040]</p>
T-4	<p>SECTION B. ADMINISTRATIVE REQUIREMENTS. [401 KAR 52:040]</p>
T-5	<p>B1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:040, Section 3(1)(b) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit. [401 KAR 52:040 Section 3(1)(b)]</p>
T-6	<p>B2. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [Cabinet Provisions and Procedures for Issuing State Origin Permits, Section 1a (11)]. [401 KAR 52:040 Section 23]</p>
T-7	<p>B3. This permit may be revised, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance shall not stay any permit condition. [Cabinet Provisions and Procedures for Issuing State Origin Permits, Section 1a (4) and (5)]. [401 KAR 52:040 Section 23]</p>
T-8	<p>B4. This permit does not convey property rights or exclusive privileges. [Cabinet Provisions and Procedures for Issuing State Origin Permits, Section 1a, 8]. [401 KAR 52:040 Section 23]</p>
T-9	<p>B5. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:040 Section 11(3)]</p>

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 4 of 17

Narrative Requirements:

Condition No.	Condition
T-10	B6. This permit shall be subject to suspension at any time the permittee fails to pay all fees within 90 days after notification as specified in 401 KAR 50:038 Section 3(6)(b), Air emissions fee. The permittee shall submit an annual emissions certification. [401 KAR 52:040 Section 20]
T-11	B7. All previously issued construction and operating permits are hereby null and void. [401 KAR Chapter 52]
T-12	SECTION C. RECORD KEEPING REQUIREMENTS. [401 KAR 52:040]
T-13	C1. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of at least five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [Cabinet Provisions and Procedures for Issuing State Origin Permits, Sections 1b (IV)(2) and 1a (7)]. [401 KAR 52:040 Section 23]
T-14	C2. The permittee shall perform compliance certification and recordkeeping sufficient to assure compliance with the terms and conditions of the permit. Documents, including reports, shall be certified by a responsible official. [401 KAR 52:040 Section 21]
T-15	SECTION D. REPORTING REQUIREMENTS. [401 KAR 52:040]
T-16	D1. a. The permittee shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows i. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown. ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall submit written notice upon request. b. The permittee shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Reporting Requirement condition D1.a above), the probable cause of the deviation, and corrective or preventive measures taken; to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report. [Cabinet Provisions and Procedures for Issuing State Origin Permits, Section 1b, V(3)]. [401 KAR 50:055 Section 1]
T-17	D2. The permittee shall furnish information requested by the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the permit. [Cabinet Provisions and Procedures for Issuing State Origin Permits, Section 1a, 6]. [401 KAR 52:040 Section 23]
T-18	SECTION E. INSPECTIONS. [401 KAR 52:040]

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 5 of 17

Narrative Requirements:

Condition No.	Condition
T-19	<p>E1. The permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:</p> <ul style="list-style-type: none">a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;b. To access and copy any records required by the permit;c. Inspect any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit.d. Sample or monitor substances or parameters to assure compliance with the permit or any applicable requirements. <p>Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency. [401 KAR 52:040 Section 3(1)(f)]</p>
T-20	<p>SECTION F. EMERGENCIES/ENFORCEMENT PROVISIONS. [401 KAR 52:040]</p>
T-21	<p>F1. The permittee shall not use as defense in an enforcement action, the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Cabinet Provisions and Procedures for Issuing State Origin Permits, Section 1a, 3]. [401 KAR 52:040 Section 23]</p>
T-22	<p>F2. An emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:</p> <ul style="list-style-type: none">a. An emergency occurred and the permittee can identify the cause of the emergency;b. The permitted facility was at the time being properly operated;c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; andd. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency and included a description of the emergency, steps taken to mitigate emissions, and corrective actions taken. <p>These provisions are in addition to any emergency or upset provision contained in an applicable requirement. [401 KAR 52:040 Section 22(1)]</p>
T-23	<p>F3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:040 Section 22(2)]</p>
T-24	<p>SECTION G. COMPLIANCE. [401 KAR 52:040]</p>

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 6 of 17

Narrative Requirements:

Condition No.	Condition
T-25	<p>G1. Periodic testing or instrumental or non-instrumental monitoring, which may consist of record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstration of continuing compliance with the conditions of this permit. For the purpose of demonstration of continuing compliance, the following guidelines shall be followed:</p> <ul style="list-style-type: none">a. Pursuant to 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly maintained, and in operation at any time an affected facility for which the equipment and measures are designed is operated, except as provided by 401 KAR 50:055, Section 1.b. All the air pollution control systems shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers. A log shall be kept of all routine and non routine maintenance performed on each control device.c. A log of the monthly raw material consumption and/or monthly production rates shall be kept available at the facility. Compliance with the emission limits may be demonstrated by computer program, spread sheets, calculations or performance tests as may be specified by the Division. [401 KAR 50:055 Section 2]
T-26	<p>G2. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with all:</p> <ul style="list-style-type: none">(a) Applicable requirements that are included and specifically identified in this permit; or(b) Non-applicable requirements expressly identified in this permit. [401 KAR 52:040 Section 11]

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 7 of 17

COMB3 (EU 005) Barrel Dryer

Maximum Rated Capacity : 32 mmBtu/hr

Narrative Requirements:

Condition

No. Condition

T-1 Applicable Regulations: There are no applicable requirements to this unit other than the general applicable requirements. [401 KAR 52:040]

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 8 of 17

EQPT1 (EU 003) Stave and Head Woodwork

Maximum Overall Design Rate : 10 Tons/hr

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	PT (Particulate Matter)	<p>Each unit shall have a maximum emissions of PT (Particulate Matter) ≤ 14.97 lbs/hr. If the process weight rate for the unit is 1,000 lbs/hr or less, the limit on emissions of particulate matter is 2.34 lb/hr. If the process weight rate for the unit is above 1,000 lbs/hr, the limit on emissions of particulate matter from the unit can be determined (in lbs/hr) by taking the process weight rate for materials introduced into the unit (in tons/hr), raising the process weight rate value to the 0.62 power, and multiplying by 3.59 (maximum = $3.59 \times \text{process weight rate}^{0.62}$).</p> <p>Compliance Demonstration</p> <p>Compliance will be demonstrated from the following emission calculation basis and monitoring requirements:</p> <p>Wood Processed :</p> <p>PM Emissions (lbs/hour) from stave and head wood working operations = (process rate in tons/hour) * (derived emission factor of 1.038 lbs/ton) * (1- the control efficiency of the baghouses)</p> <p>See Monitoring Requirements for monitoring rates and visual inspection of controls. [401 KAR 59:010 Section 3(2)] Statistical basis: Three-hour average.</p>
L-2	Visible Emissions	<p>Each unit shall have Visible Emissions < 20 % opacity. [401 KAR 59:010 Section 3(1)] Statistical basis: Six-minute average.</p>

Narrative Requirements:

Applicable Regulations:

Condition No.	Condition
T-1	<p>Applicable Regulations: New process operations is applicable to each affected facility associated with a process operation commenced after July 2, 1975 and limits particulate emissions. [401 KAR 59:010]</p>

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 9 of 17

Narrative Requirements:

Recordkeeping:

Condition No.	Condition
T-2	Recordkeeping: The permittee shall maintain records of the following: 1) monthly hours of operation and material processing rate; 2) the weekly log of qualitative visual observation of opacity of emissions and the opacity determined by Reference Method 9, if any were taken, and repairs that were made due to any opacity reading which exceeded the standard. [401 KAR 52:040 Section 10]

Monitoring:

Condition No.	Condition
T-3	Monitoring: The permittee shall monitor the amount of material processed on a monthly basis. [401 KAR 52:040 Section 10]
T-4	Monitoring: The permittee shall monitor the hours of operation of the unit on a monthly basis. [401 KAR 52:040 Section 10]
T-5	Monitoring: The permittee shall perform a qualitative visible observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observation. If visible emission from a stack are seen, then the opacity shall be determined by EPA Reference Method 9 and an inspection shall be initiated for any necessary repairs. [401 KAR 52:040 Section 10]

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 10 of 17

EQPT2 (EU 004) Boiler Cyclone Operation Maximum Overall Design Rate : 10 Tons/hr

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	PT (Particulate Matter)	<p>Each unit shall have a maximum emissions of PT (Particulate Matter) ≤ 14.97 lbs/hr. If the process weight rate for the unit is 1,000 lbs/hr or less, the limit on emissions of particulate matter is 2.34 lb/hr. If the process weight rate for the unit is above 1,000 lbs/hr, the limit on emissions of particulate matter from the unit can be determined (in lbs/hr) by taking the process weight rate for materials introduced into the unit (in tons/hr), raising the process weight rate value to the 0.62 power, and multiplying by 3.59 (maximum = $3.59 \times \text{process weight rate}^{0.62}$).</p> <p>Compliance Demonstration</p> <p>Compliance will be demonstrated from the following emission calculation basis and monitoring requirements:</p> <p>Wood Processed :</p> <p>PM emissions (lbs/hour) from Boiler Cyclone Operation = (process rate in tons/hour) * (derived emission factor of 0.402 lbs/ton) * (1-the control efficiency of the baghouses)</p> <p>See Monitoring Requirements for monitoring rates and visual inspection of controls. [401 KAR 59:010 Section 3(2)] Statistical basis: Three-hour average.</p>
L-2	Visible Emissions	Each unit shall have Visible Emissions < 20 % opacity. [401 KAR 59:010 Section 3(1)] Statistical basis: Six-minute average.

Narrative Requirements:

Applicable Regulations:

Condition No.	Condition
T-1	Applicable Regulations: New process operations is applicable to each affected facility associated with a process operation commenced after July 2, 1975 and limits particulate emissions. [401 KAR 59:010]

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 11 of 17

Narrative Requirements:

Recordkeeping:

Condition No.	Condition
T-2	Recordkeeping: The permittee shall maintain records of the following: 1) monthly hours of operation and material processing rate; 2) the weekly log of qualitative visual observation of opacity of emissions and the opacity determined by Reference Method 9, if any were taken, and repairs that were made due to any opacity reading which exceeded the standard. [401 KAR 52:040 Section 10]

Monitoring:

Condition No.	Condition
T-3	Monitoring: The permittee shall monitor the amount of material processed on a monthly basis. [401 KAR 52:040 Section 10]
T-4	Monitoring: The permittee shall monitor the hours of operation of the unit on a monthly basis. [401 KAR 52:040 Section 10]
T-5	Monitoring: The permittee shall perform a qualitative visible observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observation. If visible emission from a stack are seen, then the opacity shall be determined by EPA Reference Method 9 and an inspection shall be initiated for any necessary repairs. [401 KAR 52:040 Section 10]

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 12 of 17

EQPT3 (EU 007) 2 Wood Waste Storage Silo Maximum Overall Design Rate : 5.3 Tons/hr

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	PT (Particulate Matter)	<p>Each unit shall have a maximum emissions of PT (Particulate Matter) ≤ 10.09 lbs/hr. If the process weight rate for the unit is 1,000 lbs/hr or less, the limit on emissions of particulate matter is 2.34 lb/hr. If the process weight rate for the unit is above 1,000 lbs/hr, the limit on emissions of particulate matter from the unit can be determined (in lbs/hr) by taking the process weight rate for materials introduced into the unit (in tons/hr), raising the process weight rate value to the 0.62 power, and multiplying by 3.59 (maximum = $3.59 \times \text{process weight rate}^{0.62}$).</p> <p>Compliance Demonstration</p> <p>Compliance will be demonstrated from the following emission calculation basis and monitoring requirements:</p> <p>Wood Waste Transferred :</p> <p>PM Emissions from wood waste storage and transfer operations = (process rate in tons/hour) * (derived emission factor of 0.58 lbs/ton) * (1- control efficiency of the baghouses)</p> <p>See Monitoring Requirements for monitoring rates and visual inspection of controls. [401 KAR 59:010 Section 3(2)] Statistical basis: Three-hour average.</p>
L-2	Visible Emissions	Each unit shall have Visible Emissions < 20 % opacity. [401 KAR 59:010 Section 3(1)] Statistical basis: Six-minute average.

Narrative Requirements:

Applicable Regulations:

Condition No.	Condition
T-1	Applicable Regulations: New process operations is applicable to each affected facility associated with a process operation commenced after July 2, 1975 and limits particulate emissions. [401 KAR 59:010]

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 13 of 17

Narrative Requirements:

Recordkeeping:

Condition No.	Condition
T-2	Recordkeeping: The permittee shall maintain records of the following: 1) monthly hours of operation and material processing rate; 2) the weekly log of qualitative visual observation of opacity of emissions and the opacity determined by Reference Method 9, if any were taken, and repairs that were made due to any opacity reading which exceeded the standard. [401 KAR 52:040 Section 10]

Monitoring:

Condition No.	Condition
T-3	Monitoring: The permittee shall monitor the amount of material processed on a monthly basis. [401 KAR 52:040 Section 10]
T-4	Monitoring: The permittee shall monitor the hours of operation of the unit on a monthly basis. [401 KAR 52:040 Section 10]
T-5	Monitoring: The permittee shall perform a qualitative visible observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observation. If visible emission from a stack are seen, then the opacity shall be determined by EPA Reference Method 9 and an inspection shall be initiated for any necessary repairs. [401 KAR 52:040 Section 10]

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 14 of 17

GACTION (EU 001 and EU 002) Wood Fired Indirect Heat Exchanger.:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	SO2 (Sulfur Dioxide)	The unit shall have emissions of SO2 (Sulfur Dioxide) <= 8.03 lb/mm Btu actual heat input. [401 KAR 61:015 Section 5(1)] This requirement is applicable during the following months: All Year. Statistical basis: 24-hour average.
L-2	PT (Particulate Matter)	<p>The unit shall have emissions of PT (Particulate Matter) <= 0.61 lb/mm Btu actual heat input</p> <p>Compliance Demonstration</p> <p>Compliance will be demonstrated from the following emission calculation basis and monitoring requirements: PT emission in pounds per hour = (monthly processing rate in tons/month)(1 month/hours of operation that month)(emission factor of 5.4 lb PT/ton)</p> <p>See Monitoring Requirements for monitoring rates and visual inspection of controls. [401 KAR 61:015 Section 4(1)] This requirement is applicable during the following months: All Year. Statistical basis: Three-hour average.</p>
L-3	Visible Emissions	The unit shall have Visible Emissions <= 40 % opacity unless otherwise allowed in this permit. [401 KAR 61:015 Section 4(3)] This requirement is applicable during the following months: All Year. Statistical basis: Six-minute average.

Monitoring Requirements:

Condition No.	Parameter	Condition
M-1	fuel	The amount of each combusted fuel monitored by approved method(s) weekly shall be determined for the unit. [401 KAR 61:015 Section 5] This requirement is applicable during the following months: All Year. Statistical basis: Instantaneous determination.

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 15 of 17

Narrative Requirements:

Applicable Regulations:

Condition No.	Condition
T-1	Applicable Regulations: Existing Indirect Heat Exchangers applies to existing affected facilities less than 250 MM Btu/hr commenced before April 9, 1972. [401 KAR 61:015]

Additional Limitations:

Condition No.	Condition
T-2	Additional Limitations: There is no limit to visible emissions opacity while building a new fire provided a manufacturer recommended method is used and the manufacturer recommended time frame for bringing the boiler up to operating conditions is not exceeded. [401 KAR 61:015 Section 4(3)(c)]

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 16 of 17

GACT2 (Charring Operations) Barrel and Head Charring Operations:

Limitation Requirements:

Condition No.	Parameter	Condition
L-1	PT (Particulate Matter)	<p>Each unit shall have a maximum emission of PT (Particulate Matter) ≤ 10.8 lbs/hr. If the process weight rate for the unit is 1,000 lbs/hr or less, the limit on emissions of particulate matter is 2.58 lb/hr. If the process weight rate for the unit is above 1,000 lbs/hr, the limit on emissions of particulate matter from the unit can be determined (in lbs/hr) by taking the process weight rate for materials introduced into the unit (in tons/hr), raising the process weight rate value to the 0.67 power, and multiplying by 4.10 (maximum = $4.10 \times \text{process weight rate}^{0.67}$).</p> <p>Compliance Demonstration</p> <p>Compliance will be demonstrated from the following emission calculation basis and monitoring requirements:</p> <p>Wood Waste Burned:</p> <p>PM emissions (lbs/hour) from head char operations = (waste wood burned in tons/hour)*(derived emission factor of 5.4 lbs/ton)</p> <p>PM emissions (lbs/hour) from barrel char operations = (process rate in tons/hour)*(derived emission factor of 5.4 lbs/ton)</p> <p>See Monitoring Requirements for monitoring rates and visual inspection of controls. [401 KAR 61:020 Section 3(2)] Statistical basis: Three-hour average.</p>
L-2	Visible Emissions	Each unit shall have Visible Emissions < 40 % opacity. [401 KAR 61:020 Section 3(1)] Statistical basis: Six-minute average.

Narrative Requirements:

Applicable Regulations:

Condition No.	Condition
T-1	Applicable Regulations: Existing process operations is applicable to each affected facility associated with a process operation commenced before July 2, 1975 and limits particulate emissions. [401 KAR 61:020]

State-Origin Operating

KY Cooperage Inc
Facility Requirements

Activity ID No.: APE20050001

Page 17 of 17

Narrative Requirements:

Recordkeeping:

Condition No.	Condition
T-2	Recordkeeping: The permittee shall maintain records of the following: 1) monthly hours of operation and material processing rate; 2) the weekly log of qualitative visual observation of opacity of emissions and the opacity determined by Reference Method 9, if any were taken, and repairs that were made due to any opacity reading which exceeded the standard. [401 KAR 52:040 Section 10]

Monitoring:

Condition No.	Condition
T-3	Monitoring: The permittee shall monitor and keep records of the amount of material processed on a monthly basis. [401 KAR 52:040 Section 10]
T-4	Monitoring: The permittee shall monitor the hours of operation of the unit on a monthly basis. [401 KAR 52:040 Section 10]
T-5	Monitoring: The permittee shall perform a qualitative visible observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observation. If visible emission from a stack are seen, then the opacity shall be determined by EPA Reference Method 9 and an inspection shall be initiated for any necessary repairs. [401 KAR 52:040 Section 10]